



Published to advance the Science of cold-blooded vertebrates

NOTES ON RADCLIFFE'S SHARKS AND RAYS OF BEAUFORT

In his recent publication, *The Sharks and Rays of Beaufort, North Carolina* (Bull. U. S. Bur. Fish. XXXIV, Doc. No. 822), Mr. Lewis Radcliffe has given the student of these interesting forms an exceptionally fine piece of work, which adds greatly to our knowledge of them. By the many beautiful figures of dermal denticles and by the prominent position which he gives the use of the microscope as a means of identification, he has brought into the study of the Elasmobranchii added interest and greatly increased accuracy and it is to be regretted that in a work which will be so constantly before ichthyologists he has accepted in its entirety the nomenclature of Garman (*The Plagiostoma*, 1913) as this pretty surely contains features which will not stand. In my recent publication on *Mobula* I have used the name *olfersi* advisedly. Specimens of this fish which I sent to Paris have been compared by Dr. Jacques Pellegrin with the topotype of *olfersi* taken on the coast of Brazil in 1816 by Delalande and mentioned by Muller and Henle. He has found them to be the same species. Bancroft's description of *hypostoma*, I consider insufficient (following the opinion held by the late Dr. Theodore Gill).

Radcliffe refers to the small electric ray *Narcine* from Beaufort as *Narcine brasiliensis corallina* a sub-specific name used by Garman for the Florida specimens apparently on account of their red color. I doubt the taxonomic value of this color difference, as specimens of *Actobatis* which I have observed on the west coast of Florida had a reddish color, different from the clear black coloring of North Carolina specimens. At any rate Beaufort *Narcine*, which I have taken, have not been reddish.

The large electric ray *Tetronarce occidentalis* has been excluded from the Elasmobranchii of the North Carolina coast by Mr. Radcliffe as the records on which Dr. Smith included it in Fishes of North Carolina were indefinite. When preparing my paper on Sharks and Rays of Cape Lookout (Proc. Biol. Soc., Wash., 1915, page 89) I was of the same opinion, but recently I have taken two examples off Cape Lookout, which are now in the American Museum of Natural History, New York.

Referring to Radcliffe's note on the feeding habits of *Mobula olfersi* (page 280), I will say that like most of the Elasmobranchii they have very varied feeding habits, but I have often seen them feeding on "minnows," have caught them on hook baited with living "minnow" and have usually found in the many that I have examined that they contained "minnows" although occasionally I have found that they contained substances just as described by Mr. Radcliffe, and I saw the examination which he mentions as being made on July 10, 1913, on 9 examples [which I had caught the night before, July 9th] by Prof. W. P. Hay, and in fact opened several of their stomachs for this examination and discussed their unusual contents with Prof. Hay.

Careful measurements of a female *Mobula* are given on page 280 in which "both uteri were equally developed," a condition hard to explain, if this individual had ever had young. I have found the left uterus only functional in this species.

RUSSELL J. COLES,

Danville, Va.

ON HEPSETIA BONAPARTE, A FORGOTTEN GENUS OF ATHERINOID FISHES

The Fauna Italica of Bonaparte was issued in large sheets without date or pagination, the date usually assigned being 1836.

In this volume three new genera of Silversides (*Atherinidae*), are indicated: *Menidia*, *Membras* and *Hepsetia*. Of these, *Menidia* is defined, but without mention of type. Jordan and Gilbert assumed in 1883 that *Atherina menidia* L. was intended as the type species, a view which is doubtless correct. *Membras* is also indicated without type. Its definition contains nothing tangible. According to Aristotle, the μέμβρας or βέμβρας is a small fish of the shores of Greece, similar to the αφνη or *Aphya* (*Atherina hepsetus*), but not so good as food. This account may fit *Atherina mochon* Cuv. and Val, a small species also found in Greece, and is very likely the original μέμβρας. In want of other information we may take *Atherina mochon* as type of *Membras* in which case *Membras* becomes a synonym of *Atherina*. *Hepsetia* has been thus far overlooked. Its type is expressly stated to be *Atherina boyeri* Risso, while that of *Atherina* is *Atherina hepsetus* L. *Hepsetia* is defined as having rather strong teeth in the jaws, vomer and